

Name: _____

at1110paper__practice__test (v43)

1. Solve the equation.

$$(9x + 7)(5x - 6) = 0$$

$$x = \frac{-7}{9} \quad x = \frac{6}{5}$$

2. Expand the following expression into standard form.

$$(8x - 7)(8x + 7)$$

$$64x^2 + 56x - 56x - 49$$
$$64x^2 - 49$$

3. Factor the expression.

$$16x^2 - 81$$

$$(4x + 9)(4x - 9)$$

4. Factor the expression.

$$x^2 + 11x + 28$$

$$(x + 4)(x + 7)$$

5. Expand the following expression into standard form.

$$(4x - 3)^2$$

$$16x^2 - 12x - 12x + 9$$

$$16x^2 - 24x + 9$$

6. Solve the equation.

$$9x^2 + 11x + 9 = 4x^2 + 2x + 5$$

$$5x^2 + 9x + 4 = 0$$

$$(5x + 4)(x + 1) = 0$$

$$x = \frac{-4}{5} \quad x = -1$$

7. Solve the equation with factoring by grouping.

$$15x^2 + 18x + 10x + 12 = 0$$

$$(3x + 2)(5x + 6) = 0$$

$$x = \frac{-2}{3} \quad x = \frac{-6}{5}$$

8. Expand the following expression into standard form.

$$(2x - 3)(4x - 7)$$

$$8x^2 - 14x - 12x + 21$$

$$8x^2 - 26x + 21$$